

## MINIMUM ENTRY LEVEL FIREFIGHTER REQUIREMENTS

Evaluation of Minimum Entry Level Firefighter Training Requirements in Wisconsin

Paul E. Nelson

DeForest Area Fire and EMS Department, DeForest, Wisconsin

I hereby certify that this research paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that the appropriate credit is given when I have used the language, ideas or expression or writings of another.

Signed: \_\_\_\_\_

### Abstract

This research paper evaluates the minimum training requirements for entry level firefighters in the State of Wisconsin. Although the U.S. fire service has been around for two hundred and seventy-seven years, the risks firefighters face have increased along with the requests for help and support. These circumstances have lead to a greater demand for firefighter knowledge, thus causing an increase in training requirements. The problem is that the State of Wisconsin's minimum fire training for the entry level firefighter does not meet national standards. This research project will use evaluation methods to compare the current minimum training requirements in Wisconsin to those of the national standards. The following questions will be utilized to guide the research: (a) what level of training is currently required throughout the rest of the country, (b) what percentage of Wisconsin fire departments encourage or require Firefighter I certification, (c) what are the curriculum comparisons of the current entry level courses and the Firefighter I certification course, and (d) what are the advantages and disadvantages to increasing the training for entry level firefighters in Wisconsin.

Two surveys were conducted, along with personal interviews and an evaluation of the current curriculum compared to the National Fire Protection Agency's Standard 1001. The results and data obtained were evaluated and used to make recommendations to the DeForest Area Fire and EMS Department and the State of Wisconsin. These recommendations included considering alternative ways to provide firefighter certification to all of the Wisconsin's fire service, adding "The Courage to Be Safe" course to the core curriculum, reviewing and updating the current state laws to reflect the risks associated in 2012 and to encourage the Deforest Area Fire and EMS to work with neighboring departments to assist with training them to meet the current national standards.

## Table of Contents

Certification .....	2
Abstract.....	3
Table of Contents .....	4
Introduction .....	5
Background and Significance .....	6
Literature Review .....	7
Procedures .....	13
Results .....	15
Discussion .....	17
Recommendations .....	21
References .....	23
Appendix A .....	26
Appendix B .....	28
Appendix C .....	30
Appendix D .....	32
Appendix E .....	39

## Introduction

The fire service in the United States is rich in tradition and culture. However, tradition and culture does not preclude the requirement for change. With over two hundred and seventy-seven years of tradition, dating back to Benjamin Franklin, the fire service has seen many changes in the way we respond to the calls for help from the citizens we serve. These changes include an ever increasing requirement for knowledge, skills, and ability to conduct operations in a safe and effective manner.

In order to operate safely and to understand the increasing risks that firefighters face on a daily basis, increased training has become a necessity for today's fire service. These increasing requirements are paramount for ensuring firefighters have the knowledge, skills, and abilities to return home after every incident or shift. Unfortunately, the risks the fire service faces every day do not differentiate between a volunteer or career firefighter.

According to the National Volunteer Fire Council (NVFC,2010), even though the fire department's roles and responsibilities have changed over the years, there are still a large number of volunteer departments that do not have properly trained members.

The problem is that the State of Wisconsin's minimum fire training for the entry level firefighter does not meet national standards. This problem poses a potentially significant concern for the DeForest Area Fire and EMS department when calling for mutual aid from neighboring fire departments. As one department trains to the State of Wisconsin minimum standards and another department trains to a higher national standard, techniques and methods used may cause confusion on fire ground or incident scene. With minimal training, which does

not fully meet a national consensus standard, firefighter responses may become ineffective and unsafe, there-by putting lives and property at risk (NVFC,2010).

This research project will use evaluation methods to compare the current minimum training requirements in Wisconsin to those of the national standards. The following questions will be utilized to guide the research: (a) what level of training is currently required throughout the rest of the country, (b) what percentage of Wisconsin fire departments encourage or require Firefighter I certification, (c) what are the curriculum comparisons of the current entry level courses and the Firefighter I certification course, and (d) what are the advantages and disadvantages to increasing the training for entry level firefighters in Wisconsin.

### Background and Significance

The DeForest Area Fire and Emergency Medical Services (EMS) Department is a combination department located in Dane County, in South Central Wisconsin. The department's dedicated membership consists of 55 paid-on-call fire fighters and emergency medical technicians (EMTs), four full time firefighter/EMTs, and a full time fire chief/EMS director. The department provides fire/rescue and basic life support EMS for the Village of DeForest and four additional townships, which comprise the fire district.

In the State of Wisconsin, the Mutual Aid Box Alarm System (MABAS) is utilized for mutual aid responses where the local agency's needs exceed their resources. If called upon, neighboring departments will respond to the request for aid. Unfortunately, the minimum training required for firefighters responding to an incident does not exceed the state minimum requirements for local support. The requirement for certified Firefighter I for mutual aid

responses only is required when a firefighter goes outside of their MABAS Division (usually county).

Forsman (2002) states that the fire service provides a high quality service to its communities, and also notes that the requirements for training, needs to have a high value for safety of fire service personnel.

According to the National Institute of Occupational Safety and Health (NIOSH) report of a recent line of duty death (LODD) in Wisconsin, the lack of hazardous materials awareness training was cited as a contributing factor in the volunteer firefighter's death (NIOSH, 2010). In this incident, a 33 year old firefighter died and eight firefighters were injured when a dumpster at a foundry exploded while they were attempting extinguishment (NIOSH, 2010).

This applied research project focuses on evaluating the minimum training for entry level firefighters in Wisconsin as compared to national standards. This is directly related to one of the goals of the Executive Leadership course from the National Fire Academy, namely to explain the purpose and benefits of applying systems thinking to the identification and diagnosis of adaptive challenges (National Fire Academy [NFA], 2011). Additionally, this applied research project focuses on one of the goals of the United States Fire Administration's (USFA) five-year plan, to reduce risk at the local level through prevention and mitigation (USFA, 2010).

### Literature Review

Firefighting has long been understood as a dangerous occupation. Every year, the National Fire Protection Association (NFPA) publishes national injury and fatality statistics. These statistics attest to the fact that firefighting presents great risks of personal injury to

firefighters (NFPA, 2011). In 2010, there were 72 reported fatalities and 71,875 reported injuries, of which, 32,675 or 45.4 percent occurred on the fire ground (NFPA, 2011).

Karter and Stein (2011) report there were 1,103,300 firefighters nationwide in 2010, of which, 335,150 (30%) are career and 768,150 (70%) are volunteer. In addition, the report indicates that there were 30,125 fire department in the United States, with 25,770 (86%) of those consisting of mostly volunteers (Karter and Stein, 2011).

According to the National Institute of Occupational Safety and Health (NIOSH), lack of hazardous materials training was a contributing cause in the death of a 33 year old Wisconsin fire fighter (NIOSH, 2010).

Additionally, a roof collapse caused the death of another Wisconsin fire fighter and injured four others as reported by the Journal Sentinel Online (JSOnline, 2012).

Goldfeder (2011) argues that it is not a secret that training is the main way to minimize injury or death in the fire service. Fire doesn't care whether you are a paid fire fighter or volunteer when relating to the risks that are inherent to this job.

Some of these risks are associated with changes in the environment that we are faced with. Kerber (2010) identified that a room and contents fire of today will reach flashover much faster than one constructed with materials from several decades ago.

Izydorek, Zeeveld, Samuels and Smyser (2008), reported that newer construction materials, such as unprotected (with gypsum wallboard) engineered "I" beams fail rapidly under fire conditions.



With the risks and the stresses of fire fighting, firefighters will react as trained and without thought. Halton (2011) reported that under stress, we react intuitively, without thinking. This will include reacting as we previously may have reacted and if not analyzed, these actions could lead to fatal wounds.

Clark (2007) states that in order for the mantra “Train the way your fight. Fight the way you train” to work, all of us from rookie to chief officer need to be trained. Through training, newbies will be taught how to do things right the first time and oldies how to change their ways to respond correctly.

Fireman Mike (2010) stated in a recent blog, we train to make our worst days better and so that we come home to those we love. He also indicates that the lack of training is one common denominator with many of the line of duty deaths as reported by NIOSH.

Carter (2002) stated that his worst mistakes have been in areas where his level of training was weak. Additionally, he comments that far too many tragic failures in the fire service are due to a lack of training. Furthermore, we are now faced with the realities of a new world order in firefighting. People must be given the critical skills and knowledge to manage through a firefighting operation (Carter, 2002).

Steel (2004) commented on volunteers and training, by stating that if you care about being the best, you train. You sacrifice the nights and weekends to make sure that your response is professional and appropriate (Steel, 2004).

The importance of training isn’t just for the fire service. In today’s modern law enforcement world, police training is as important as doctor’s attending medical school and

passing exams. Without properly trained police officers, society would not function successfully (Policelink, 2011).

No matter what position a person holds in the fire service, occupational technical training and certifications are important (Compton, 2011).

According to Marinucci (2011), a high level of skill is best for reducing the risk inherent to firefighting. He further states that the best way to minimize the potential for problems is to make sure everyone is trained to the highest level possible (Marinucci, 2011).

Tobia (2011) reports that in some departments, such as one in York County, Pennsylvania, certified firefighters and an unflinching commitment to safety has aided in a growing membership roster.

The fire and emergency response services have a long history for providing their communities with high quality services (Forsman, 2002). A high value on training shouldn't only be for high quality service, but more importantly for the safety of fire service personnel (Forsman, 2002).

Additional concerns come from the potential for litigation if a fatality occurs. As reported by Stittleburg (2011), criminal charges tend to be rare, but have happened. One example was where a deputy chief was sentenced to 75 days in jail, five years probation and 100 hours of community service for a firefighter death during a training evolution (Stittleburg, 2011).

In order to address the increasing needs for training, there are alternatives for volunteers. According to Milan (2012), one approach is to "flip" the classroom by providing the students

with all the materials prior to class. This allows for more open discussions in the classroom (Milan, 2012).

As reported by Ray (2012), a cafeteria plan for certifications and the need for modular training leading toward certifications is being looked at nationally. What ever program is used, our certifications should be commensurate with our communities' needs, risks faced and department capabilities (Ray, 2012).

Some states require basic training courses and periodic recertification. Navera (2011) states that in Ohio, 36 hour basic course is required to get certified and to be recertified every three years.

In the state of Tennessee, lawmakers have passed firefighter training laws in an effort to provide uniformity throughout the state (Hayes, 2010). Some of the lawmakers are concerned that the lack of training not only puts the firefighters lives at risk, but also puts others at risk as well (Hayes, 2010).

Brooks (1996) identified that without adequate training, fire departments will not be prepared to provide the services expected of them. Additionally, Brooks states that time constraints will need to be addressed related to members' training (Brooks, 1996).

Wisconsin passed a 60 hour training requirement into law in 1996, by passage of 1995 Senate Bill 508. This bill requires a training program for structural fire fighting that may not be more than 60 hours of training (Wisconsin, 1996).

The national standard for fire fighter entry level training is found in NFPA 1001. Chapter five of this standard outlines the general knowledge and skills that an entry level fire fighter

should have to meet the standard (NFPA, 2008). These skills are identified as job performance requirements (JPR's). This standard lists 26 JPR's that should be met in order for a firefighter to meet Firefighter I certification (NFPA, 2008).

The State of Wisconsin is currently utilizing the Fifth Edition of the Essentials of Fire Fighting by the International Fire Service Training Association (IFSTA). This manual was prepared to meet the requirements of NFPA 1001 to assist in Fire Fighter I training and certification (IFSTA, 2008).

With the rising number of LODD's, the National Fallen Firefighters Foundation (NFFF) held a summit in 2004 to discuss ways in which to reduce the fatalities. This meeting produced 16 Life Safety Initiatives aimed at reducing LODD's by 50% in 10 years (NFFF, 2012).

Life Safety Initiative number five, in particular, focuses on development and implementation of national standards for training and certifications (including recertification) applicable to all firefighters (NFFF, 2012).

Brown, Kazmierzak, Loraine and Walker (2005) reported that increased demands of firefighters for advanced training, overshadows the basic firefighter training, which hasn't been mandated by many states. With the risks faced from the job, volunteer and career firefighters can not afford to respond without proper training (Brown, Kazmierzak, Lorain and Walker, 2005).

Crosby and Cole (2008) indicated that training sets the baseline for a department's performance and functions. This is done through the establishment of minimum training standards (Crosby and Cole, 2008).

According to the National Volunteer Fire Council (NVFC, 2010), the on-scene firefighter is safer when properly trained, as well as the department will benefit by improved operations, positive public relations and higher morale. The NVFC is committed to ensuring that the volunteer firefighters have appropriate level of training based upon the job performance requirements of NFPA 1001, to safely and effectively carry out their functions (NVFC, 2010).

### Procedures

Realizing the problem of minimum training for a number of years, the author began unofficial research in July 2009. This included reading various articles and talking to other states to understand their minimum training requirements.

Official research for this paper began in August 2011, when the author was attending the National Fire Academy (NFA) in Emmitsburg, Maryland, while attending the Executive Leadership course of the Executive Fire Officer (EFO) program. Using resources obtained at the Learning Resource Center (LRC) the author developed and refined a research problem and purpose statement for this research paper.

Upon return from the NFA, the author continued researching by conducting a literature review from numerous sources. These sources included articles from professional journals and reports, professional fire service text books, and through internet searches.

In addition to the literature review, several surveys were conducted to gather information from within the fire service community of Wisconsin and from fire service training directors from around the United States. Both of these surveys utilized the website Survey Monkey ([www.surveymonkey.com](http://www.surveymonkey.com)). Each survey was designed to look at different types of information related to the research questions identified for this project.

The first survey was sent to membership of the North American Fire Training Directors Association (NAFTD). This list included all 50 states, as well as some from Canada. A total of eight questions were in the design of this survey, to gain some information from around the country related to entry level firefighter training in each state. The collective results of this survey are found in Appendix A.

One major limitation of this survey was the fact that only 23 out of 50 states responded to the survey. Therefore, the sample size was quite small. The author had expected there would have been a greater response.

The second survey was sent to 491 fire departments in the State of Wisconsin through the Wisconsin State Fire Chief's Association (WSFCA) email list serve. This represents the total department memberships with the WSFCA. Nine questions were put in to the design of this survey to obtain feedback from around the state related to minimum requirements of entry level training in Wisconsin. A copy of this survey and the collective results are found in Appendix B.

A significant limitation to this survey, like many surveys, is the limited response from those in the sample group. Currently in Wisconsin, there are 864 registered fire departments. Unfortunately, many do not have email addresses or internet service. Additionally, only 491 or 57% of the departments are members of the WSFCA. Of the 491 departments, only 206 responded. This represents 42% of the WSFCA membership, but only 24% of the departments within the state.

In order to evaluate the current curriculum used in Wisconsin, a review of the current entry level firefighter curriculum and the Firefighter I certification curriculum was conducted, comparing them against NFPA 1001 Fire Fighter Professional Qualifications standard.

The information and data gathered assisted the author in addressing the research problem and purpose statements, as well as in answering the specific research questions identified for this project.

## Results

Through the research, literature review, and surveys conducted, the author was able to evaluate the current minimum entry level firefighter training compared to national standards.

The first research question asked: what level of training is currently required throughout the rest of the country? This question was addressed in the survey sent to the NAFTD.

Survey results indicated that 59.1% of those responding do not have any training requirement, while 13.6% require less than 100 hours without certification and 27.2% require Firefighter I and/or II certification.

Telephone interviews were also conducted with individuals from the neighboring states to Wisconsin. These interviews looked at specific training in those states, given that the fire service demographics are similar to Wisconsin.

According to G. Hayes (personal communication, March 27, 2012), Minnesota currently does not require any training for volunteers, but does require certification for career firefighters. He further states that many departments, approximately 35-40% do require their members to be certified to ensure that the department meets the requirements of the Occupational Safety and Health Administration (OSHA) (G. Hayes, personal communication, March 27, 2012).

R. Webster (personal communication, March 28, 2012) indicated that Illinois has no requirement for volunteers, it is up to the authority having jurisdiction to establish the

minimums. Career firefighters are required to become certified, as a Basic Operations Firefighter. This requirement exceeds NFPA 1001 by including trench rescue, emergency vehicle operations and “The Courage to Be Safe” course through the Everyone Goes Home program (R Webster, personal communication, March 28, 2012).

In Michigan, Act 291 requires all volunteer firefighters to pass firefighter I within two years of their start date and career firefighters within one year. In addition, Michigan has a firefighter safety law through the Michigan Occupational Safety and Health Administration (MIOSHA) which requires a high level of training (C. Lear, personal communication, March 28, 2012).

C. Able states that for volunteers in Indiana, there is a “Mandatory Certification” as defined by Indiana code. It is objective based and not hourly based, so there isn’t a specific hourly requirement (C. Able, personal communication, April 2, 2012).

Research question number two asked: what percentage of Wisconsin fire departments encourage or require Firefighter I certification? This question was answered by the survey sent through the WSFCA list serve.

Several questions in the survey were directed at looking at this specific question and to gain some knowledge about how Wisconsin departments view Firefighter I certification.

Results from the question that asked about minimum level of training for active members were as follows: entry level I firefighter – 8.7%, entry level II firefighter – 26.7%, certified firefighter I – 46.1%, certified firefighter II – 17.5%, and no training needed – 1%.



An additional question asked if firefighter I certification was encouraged, if it is not a current requirement. Of the departments responding, 35.4% encourage it and 59.3% require it, as opposed to only 5.3% that do not encourage certification.

The third research question asked: what are the curriculum comparisons of the current entry level courses and the certified firefighter I course?

In order to answer this question, the author compared the Entry Level I, Entry Level II, and Firefighter I curriculum compared to NFPA 1001 JPR's. As identified earlier, NFPA 1001 has 26 specific JPR's that must be met for a firefighter to be eligible for certification as a Firefighter I. Each of the three courses were evaluated and reviewed by the lesson and content, as compared to the JPR's. These comparisons are found in Appendices C, D and E.

As this comparison determined, not all of the JPR's are met with just the Entry Level I or II courses together. Although some of the JPR's may be discussed in these courses, student's demonstration of them may not occur until completing the Firefighter I certification course.

The final research question asked: what are the advantages and disadvantages to increasing the training for entry level firefighters in Wisconsin?

In the survey sent to the WSFCA members one question asked what the respondents felt are advantages and disadvantages to firefighter certification? Of those responding, firefighter safety (97.6%), efficiency (93.6%), competency through demonstrated skills (96.6%) and better understanding of fireground operations (96.1%) were all advantages. Disadvantages were also indicated as: cost of training (42.1%), time commitment (63.7%), and travel/budget constraints (57.6%).

In the survey sent through the NAFTD, time commitment was also identified as a significant disadvantage to certification training (70.6%).

### Discussion

It is clear that firefighting is a risky job, no matter if the department is volunteer or career. As indicated in the 2010 national statistics, 72 fatalities and 71,875 injuries were reported (NFPA, 2010). According to Goldfeder (2011), fire doesn't care whether you are paid or volunteer. The risks are the same.

Although some of these risks have not changed over the years, many more increased risks have driven the increase training requirements. Kerber (2010) reports that rooms with modern furnishings reached flashover in approximately three minutes, compared to rooms with older furnishings reaching flashover in approximately 30 minutes. In addition, fire tests of new light-weight construction materials when unprotected, failed in six minutes (Izydorek, Zeeveld, Samuels and Smyser, 2008).

We see our environment, including our homes and businesses relying more and more on synthetic materials and chemicals. These materials along with the changes in construction have increased the risks to interior firefighting operations. Without adequate knowledge of these materials and construction designs, firefighters are faced with unacceptable risks to themselves and their fellow firefighters.

Case history has shown that in many LODD's, the lack of training was a contributing factor. In the NIOSH report for a Wisconsin volunteer firefighter LODD, the lack of hazardous materials training was identified as a contributing cause (NIOSH, 2010). Like so many of the

increasing risks faced in today's fire service, the presence of hazardous materials has significantly increased the risk faced in emergency situations.

As indicated by Marinucci (2011), training to a higher level of skill is the best way to reduce the risks. Like any other high stress profession, firefighters will react intuitively, without thinking (Halton, 2011). It is vitally important that firefighters are prepared to fight the first time, through adequate training in order to respond without thinking. This is best stated by the mantra "Train the way you fight. Fight the way you train" (Clark, 2007).

Survey results confirm that the time commitment for all of the required training is seen as a disadvantage to the volunteer firefighters. Results from the NAFTD survey indicated 70.6% viewed time commitment as a major disadvantage. This result is correlates with the WSFCA survey where 63.7% indicated that time commitment was a significant concern.

The NVFC also indicated that time commitment is a major challenge for volunteer firefighters, but adopted a policy position that all volunteer departments establish training goals based upon the level of service they provide and in accordance with the JPR's in NFPA 1001 (NVFC, 2010).

According to the WSFCA survey, more than 90% of those responding felt that firefighter safety, efficiency, competency and better understanding are important advantages of increased firefighter training and certification. Given these results, the Wisconsin fire service needs to look at alternative means to providing firefighters with in increased training opportunities.

In all of the bordering states, the issues with available time are the same. But in the case of several of them, training requirements were increased for the purpose of reducing risk to the firefighters.

The review of the current Wisconsin entry level Firefighter I and II courses compared to NFPA 1001, found that many of the JPR's are discussed in some fashion, but not all of the JPR's are addressed in their entirety. In particular, building construction is not covered until a firefighter is taking the Firefighter I certification portion. Given the information found in the reports from the building materials studies, this risk factor is not covered in the current minimum level training in Wisconsin.

In 1996, the State of Wisconsin passed 1995 Senate Bill 508. This bill set the maximum training hour requirement at 60 hours. Since the passage of this law 16 years ago, many of the risks and concerns that the fire service experiences have increased. Unfortunately, this bill hasn't been reviewed or updated since it was passed.

There are new ideas currently being utilized in the fire service to provide training opportunities. Flipping the classroom, by providing the materials prior to the classroom time and requiring the students to be ready to discuss the topics, is one method (Milan, 2012). An additional method is using a cafeteria plan and modular training to build the training requirements based upon the risks associated in each community (Ray, 2012). Hybrid training including on-line course work, discussions and hands-on classroom training is also becoming used more and more frequently as a means to deliver the courses to students.

Fireman Mike states his personal views as to why training needs to be present. According to Mike, we train to make our worst days better and so that we come home to those we love. His sentiments are the core of the Everyone Goes Home program through the National Fallen Firefighter's Foundation. Through the use of the Life Safety Initiatives (LSI), the NFFF's goal is to reduce LODD's by 50% in 2014 (NFFF, 2012).

By embracing LSI, number 5, “Develop and implement national standards for training, qualifications, and certification (including regular recertification) that are equally applicable to all firefighters based on the duties they are expected to perform”, departments will be making a positive step to reducing the risks firefighter face (NFFF, 2012).

### Recommendations

Wisconsin like many states continues to struggle with the increased demands on firefighters and training requirements to maintain skills. These challenges do not exempt any fire departments from the risks associated with the services provided.

Given that there continue to be more demands and increased requests for service, as well as increased knowledge skills and abilities that are required, the State of Wisconsin needs to consider alternative methods of instruction for the students.

Additionally, departments and chief officers need to consider the risks and conduct comprehensive risk assessments compared to the level of training their members are receiving and the services they provide their communities. This should be done to ensure that each and every firefighter comes home at the end of their shift or call.

In order to accomplish these goals, the author makes the following recommendations:

1. The State of Wisconsin should conduct a thorough review of the Entry Level I, II and Firefighter Certification courses to stream line them to provide for one comprehensive course that meets the JPR’s for NFPA 1001.

2. The State of Wisconsin should develop an alternative course design to include on-line and hands-on practical skills to help minimize total time commitment away from the firefighter's home and/or community.
3. As a way to help with the education and reduction in LODD's, The Courage to Be Safe program should be included at the entry level firefighter training.
4. There should be a complete review of 1995 Senate Bill 508 to bring it up-to-date with the current training standards and requirements of the fire service in the current environment.
5. The DeForest Area Fire and EMS department should evaluate the neighboring department's level of training and identify any deficiencies.
6. The DeForest Area Fire and EMS department should encourage and help train neighboring departments to increase their capability in responding to mutual aid requests.

Through the use of modern technology and forward thinking, the training levels in Wisconsin can be increased without significant increases in firefighter's time commitments away from their homes and families. This will require departments and chiefs to look at LSI number one and consider the need for cultural change for the safety and betterment of the fire service as a whole and for each community.

If the State of Wisconsin and Wisconsin's fire service work together to develop updated curriculum that will meet the national standards and increase the basic knowledge of the entry level firefighter, the risk of LODD's will be decreased. Finally, as a result of the increase and

stream-lined training, there will be more interoperability between departments and the risks associated with mutual aid firefighters with limited training can be eliminated.

## References

1995 Senate Bill 508, Wisconsin § 38.04 (9) and 101.55 (1996).

Brooks, D. J. (1996). *Developing a basic training program to provide for uniform fire fighter training and education in the state of Wisconsin*. (Executive Fire Officer Program). National Fire Academy, Emmitsburg, MD.

Brown, R., Kazmierzak, B., Loraine, T., & Walker, C. (2005). *Legislative firefighter training requirements – a state by state survey*. Indiana Special Training Task Force – Board of Firefighting Standards and Education.

Clark, B.A. (2007). Train the way your fight – fight the way you train. *Firehouse.com*. Retrieved July 30, 2011, from <http://www.firehouse.com/topic/training/train-way-you-fight-fight-way-you-train>.

Carter, H. R. (2002). Training – we need it now more than ever. *The Voice*, 31(11), 19-22.

Compton, D. (2011). Investing in the future – how to prepare the next generation of fire service leaders. *Firehouse*, 36(11), 24.

Firefighter dies in abbotsford blaze. *JSOnline*. Retrieved March 14, 2012, from <http://www.jsonline.com/news/wisconsin/4-firefighters-hurt-in-abbotsford-blaze-qm4eeri-141381163.html>.

Fireman Mike (2010, June 21). Train like you fight-fight like you train [Msg 1]. Message posted to <http://mikethefireman.blogspot.com/2010/06/train-like-you-fight-fight-like-you.html>.



- Forsman, D. P., (2002). Training for fire and emergency response services. In D. Compton & J. Granito (Eds.), *Managing fire and rescue services* (p. 268). Washington, DC: International City/County Management Association.
- Goldfeder, W. (2011). Firefighter through the floor in heavy fire. *Firehouse*, 36(10), 33.
- Goodson, C. & Murane, L. (Eds.). (2008). *Essentials of fire fighting* (5<sup>th</sup> ed.). Stillwater, OK: Fire Protection Publications.
- Halton, B. (2011). Training scars potentially fatal wounds. *Fire Engineering*, 164(12), 6.
- Izydorek, M. S., Zeeveld, P. A., Samuels, M. D. and Smyser, J. P. (2008). *Report on structural stability of engineered lumber in fire conditions* (Underwriters Laboratories File No. NC9140). Northbrook, IL: Underwriters Laboratories, Inc.
- Karter, M. J. and Molis, J.L. (2011). US firefighter injuries in 2010. *NFPA Journal*, 105, 60-67.
- Karter, M. J. and Stein, G. P. (2011). *U.S. fire department profile through 2010*. Quincy, MA: NFPA Fire Analysis and Research.
- Kerber, S. (2010). *Impact of ventilation on fire behavior in legacy and contemporary residential construction* (Underwriters Laboratories, Issue Date: December 14, 2010). Northbrook, IL: Underwriters Laboratories, Inc.
- Marinucci, R. (2011). Emergency scene problem prevention. *Fire Engineering*, 164(10), 34-35.
- Milan, K. (2012). Flipping the classroom. *FireRescue Magazine*, 30(1), 38-39.

National Fire Academy. (2011). *Executive leadership course – student manual (Pilot)*.

(p. SM 3-1). Emmitsburg, MD: Author.

National Fire Protection Association. (2008). NFPA 1001: Standard for firefighter professional qualifications. Quincy Park, MA.

National Institute of Occupational Safety and Health. (2010). *Fire fighter fatality investigation and prevention program – selected investigation reports* (DHHS Publication No. 2011-122, pp. 71-94). Washington, DC: U.S. Government Printing Office.

Navera, T. (2011). Firefighter recertification law threatens volunteer departments in ohio.

*FireRescue1 News*. Retrieved October 20, 2011, from

<http://www.firerescue1.com/print.asp?act=print&vid=1164803>.

Policelink (2011, July 30). The history and importance of police training [Msg 1]. Message posted to <http://policelink.monster.com/training/articles/143993-the-history-and-importance-of-police-training>.

Ray, S. (2012). The “commensurate” conundrum. *FireRescue Magazine*, 30(3), 42-45.

Steele, L. (2004). To be the best, train! *Fire Engineering*, 157(11), 12-14.

Stittleburg, P. (2011). U.S. not likely to see similar prosecutions. *Fire Chief*, 55(1), 68-69.

Tobia, M. (2011). Are you certain you want that promotion? *FireRescue Magazine*, 29(11), 74.

United States Fire Administration. (2010). *Strategic plan – fiscal years 2010-2014*.

(p. 13). Emmitsburg, MD: Author.

## Appendix A

<i>Entry Level Firefighter – Part I</i>			
<b>Lesson Number</b>	<b>Topic</b>	<b>Time</b>	<b><i>NFPA 1001 JPR</i></b>
1	Introduction, Firefighter safety, NIMS 100/700	3:00 hours	<i>5.1.1</i> <i>5.3.2</i> <i>5.3.3</i> <i>5.3.5</i> <i>5.3.17</i>
2	Fire Behavior, Portable extinguishers	3:00 hours	<i>5.3.8</i> <i>5.3.10</i> <i>5.3.11</i> <i>5.3.12</i> <i>5.3.16</i>
3	PPE and SCBA	3:00 hours	<i>5.1.1</i> <i>5.1.2</i> <i>5.3.1</i>
4	SCBA practical	3:00 hours	<i>5.3.1</i> <i>5.3.5</i> <i>5.3.9</i> <i>5.5.1</i>
5	Search and Rescue, Intro to Forcible Entry	3:00 hours	<i>5.3.4</i> <i>5.3.5</i> <i>5.3.9</i> <i>5.3.17</i> <i>5.5.1</i>
6	Hose (basics, couplings, rolls)	3:00 hours	<i>5.3.10</i>

			5.5.2
7	Water Supply	3:00 hours	5.3.15
8	Hose Loads, Fire Streams	3:00 hours	5.3.10
9	Hose – Handling Practical	3:00 hours	5.3.8 5.3.10
10	<i>Hose – Handling Practical</i>	<i>3:00 hours</i>	5.3.8 5.3.10

## Appendix B

<i>Entry Level Firefighter – Part II</i>			
<b>Lesson Number</b>	<b>Topic</b>	<b>Time</b>	<b><i>NFPA 1001 JPR</i></b>
11	HazMat Awareness	3:00 hours	
12	HazMat Awareness and Ladders	3:00 hours	5.3.6
13	Ladders (raises and climbs)  Intro to Ropes	3:00 hours	5.3.6  5.3.9  5.3.11  5.3.12  5.5.1
14	Ladders (hose and rescue)	3:00 hours	5.3.6  5.3.10
15	Ventilation	3:00 hours	5.3.11  5.3.12
16	Fire Control – classroom	3:00 hours	5.3.7  5.3.8
17	Fire Control – practical,  vehicle fire, dumpster fire, extinguishers, wildland	3:00 hours	5.3.7  5.3.8  5.3.10  5.3.16  5.3.19
18	Fire Control – structural evolutions	3:00 hours	5.3.10
19	Fire Control - structural	3:00 hours	5.3.8  5.3.10

20	<i>Loss Control</i>	3:00 hours	5.3.10
	<i>Final Exam</i>		5.3.14
			5.5.1

## Appendix C

<i>Entry Level Firefighter – Part II</i>			
<b>Lesson Number</b>	<b>Topic</b>	<b>Time</b>	<b><i>NFPA 1001 JPR</i></b>
11	HazMat Awareness	3:00 hours	
12	HazMat Awareness and Ladders	3:00 hours	5.3.6
13	Ladders (raises and climbs)  Intro to Ropes	3:00 hours	5.3.6  5.3.9  5.3.11  5.3.12  5.5.1
14	Ladders (hose and rescue)	3:00 hours	5.3.6  5.3.10
15	Ventilation	3:00 hours	5.3.11  5.3.12
16	Fire Control – classroom	3:00 hours	5.3.7  5.3.8
17	Fire Control – practical,  vehicle fire, dumpster fire, extinguishers, wildland	3:00 hours	5.3.7  5.3.8  5.3.10  5.3.16  5.3.19
18	Fire Control – structural evolutions	3:00 hours	5.3.10
19	Fire Control - structural	3:00 hours	5.3.8  5.3.10

20	<i>Loss Control</i>	3:00 hours	5.3.10
	<i>Final Exam</i>		5.3.14
			5.5.1








## Appendix D





## Entry Level Firefighter Training Requirements





## 1. What is the minimum training requirement for an entry level fire fighter in your state?

		Response Percent	Response Count
No training requirement		59.1%	13
Less than 50 hours, no certification		4.5%	1
Less than 100 hours, no certification		9.1%	2
Fire fighter I certification		13.6%	3
Fire fighter II certification		13.6%	3
answered question			22
skipped question			1




## 2. If you answered fire fighter I or II certification in question 1, what category of fire fighter is this a requirement for? (select all possible categories)

		Response Percent	Response Count
Volunteer		10.0%	2
Paid-on-call		5.0%	1
Career		30.0%	6
N/A (currently do not require certification for entry level)		65.0%	13
answered question			20
skipped question			3



### 3. What standard does your fire fighter I or II certification follow?

		Response Percent	Response Count
NFPA 1001 (current edition)		95.7%	22
State developed standard		4.3%	1
Does not follow any established standard		0.0%	0
answered question			23
skipped question			0





### 4. If you currently do not require certification, is it being considered as a requirement in the future?

		Response Percent	Response Count
Yes		17.4%	4
No		52.2%	12
N/A (currently require certification)		30.4%	7
answered question			23
skipped question			0



### 5. If you require certification, is there also a requirement for re-certification?


		Response Percent	Response Count
Yes (every 1-5 yrs)		19.0%	4
Yes (every 5-10 yrs)		0.0%	0
No, not required		81.0%	17
answered question			21
skipped question			2

**6. If there is currently no certification requirement, is there opposition in the fire service if it were to become a requirement? (answer all possible responses)**

		Response Percent	Response Count
Yes, volunteers don't have the time		70.6%	12
Yes, volunteers don't feel the need or benefit		47.1%	8
Yes, volunteers can not afford the training		35.3%	6
No, all levels of service embrace certification		23.5%	4
answered question			17
skipped question			6

**7. Does your state have a an agency that provides fire service training oversight and compliance? (Name of the agency)**

		Response Percent	Response Count
Yes		95.0%	19
No		5.0%	1
answered question			20
skipped question			3

8. What state are you from?			
		Response Percent	Response Count
State:		100.0%	21
answered question			21
skipped question			2

Q7. Does your state have a an agency that provides fire service training oversight and compliance? (Name of the agency)		
Yes		
1	BFS/Office of Fire Fighter Training	Nov 29, 2011 12:15 PM
2	Wisconsin Technical College System	Nov 28, 2011 10:34 AM
3	Nebraska Fire Marshal Training Division	Nov 23, 2011 2:28 PM
4	Division of State Fire Marshal, Bureau of Fire Standards	Nov 22, 2011 3:48 PM
5	Fire Marshal's Office	Nov 22, 2011 10:48 AM
6	Oregon Department of Public Safety Standards and Training	Nov 21, 2011 6:12 PM
7	Emergency Services Training	Nov 21, 2011 5:58 PM
8	Wyoming State Fire Marshal's Office, Training Division	Nov 21, 2011 4:26 PM
9	Ohio Department of Public Safety, Division of EMS	Nov 21, 2011 4:25 PM
10	Commission on Fire Prevention & Control	Oct 14, 2011 9:49 AM
11	paid personnel - Texas Commission on Fire Protection	Oct 13, 2011 4:38 PM
12	Fire Services Training School	Oct 13, 2011 11:52 AM
13	NC Fire/Rescue Commission	Oct 13, 2011 10:02 AM
14	Georgia Firefighter Standards and training council	Oct 13, 2011 9:58 AM
15	Fire and Emergency Training Institute	Oct 13, 2011 9:43 AM
17	Illinois Fire Service Institute(Training) & Office of the State Fire Marshal (Certification Testing)	Oct 13, 2011 8:03 AM
18	Massachusetts Fire Training Council	Oct 12, 2011 9:23 PM
19	Alaska Division of Fire and Life Safety Training and Education Bureau	Oct 12, 2011 6:39 PM
20	Virginia Department of Fire Programs	Oct 12, 2011 6:30 PM
No		
16	no	Oct 13, 2011 8:22 AM

Q8. What state are you from?		
	1	
State:	MI	Nov 29, 2011 12:15 PM
	2	
State:	WI	Nov 28, 2011 10:34 AM
	3	
State:	AZ	Nov 26, 2011 12:22 AM
	4	
State:	NE	Nov 23, 2011 2:28 PM
	5	
State:	FL	Nov 22, 2011 3:48 PM
	6	
State:	OR	Nov 21, 2011 6:12 PM
	7	
State:	ID	Nov 21, 2011 5:58 PM
	8	
State:	IN	Nov 21, 2011 4:57 PM
	9	
State:	WY	Nov 21, 2011 4:26 PM
	10	
State:	OH	Nov 21, 2011 4:25 PM
	11	
State:	MO	Nov 21, 2011 4:24 PM
	12	
State:	CT	Oct 14, 2011 9:49 AM
	13	
State:	TX	Oct 13, 2011 4:38 PM
	14	
State:	MT	Oct 13, 2011 11:52 AM

Q8. What state are you from?		
	15	
State:	NC	Oct 13, 2011 10:02 AM
	16	
State:	GA	Oct 13, 2011 9:58 AM
	17	
State:	LA	Oct 13, 2011 9:43 AM
	18	
State:	IL	Oct 13, 2011 8:03 AM
	19	
State:	MA	Oct 12, 2011 9:23 PM
	20	
State:	AK	Oct 12, 2011 6:39 PM
	21	
State:	VA	Oct 12, 2011 6:30 PM

## Appendix E

## Wisconsin Firefighter Certification Survey



## 1. What classification is your department?






		Response Percent	Response Count
Career		21.4%	44
Combination		33.5%	69
Volunteer		45.1%	93
answered question			206
skipped question			0

## 2. What is the population that you serve?






		Response Percent	Response Count
Less than 1000		8.7%	18
1000-10000		47.1%	97
10000-50000		33.5%	69
50000-100000		8.3%	17
more than 100000		2.4%	5
answered question			206
skipped question			0






### 3. How many annual structure fire calls does your department respond to?

		Response Percent	Response Count
less than 10		44.2%	91
10-50		36.4%	75
50-100		7.3%	15
100-500		11.2%	23
500-1000		1.0%	2
more than 1000		0.0%	0
answered question			206
skipped question			0






### 4. Does your department require a minimum level of training to be an active member?

		Response Percent	Response Count
Entry Level 1		8.7%	18
Entry Level 2		26.7%	55
Certified Firefighter 1		46.1%	95
Certified Firefigther 2		17.5%	36
No training needed		1.0%	2
answered question			206
skipped question			0



**5. If you currently do not require Firefighter 1 certification, does your department encourage your members to become certified?**

		Response Percent	Response Count
Yes		35.4%	67
No		5.3%	10
<b>N/A - Require certification</b>		59.3%	112
<b>answered question</b>			<b>189</b>
<b>skipped question</b>			<b>17</b>

**6. Is there opposition in your department to obtaining Firefighter 1 certification? If so, what are some of the reasons for this opposition?**

		Response Percent	Response Count
Yes, Cost for certification exams		3.0%	6
Yes, Time commitment for the required hours of the course		25.5%	51
Yes, Travel commitment and costs to attend the course		7.0%	14
Yes, Feel that the certification isn't important		6.0%	12
<b>No, there is no opposition to certification</b>		72.5%	145
<b>Other (please specify)</b>			<b>12</b>
<b>answered question</b>			<b>200</b>
<b>skipped question</b>			<b>6</b>




**7. If there was an alternative means to provide the training, such as a hybrid course (some online and some hands on), would there be more interest in completing Firefighter 1 certification?**

		Response Percent	Response Count
Yes		55.0%	104
No		45.0%	85
answered question			189
skipped question			17

**8. Which of the following do you feel are advantages or disadvantages to firefighter certification?**

	Advantages	Disadvantages	N/A	Response Count
Firefighter safety	97.6% (201)	0.0% (0)	2.4% (5)	206
Firefighter efficiency	93.6% (191)	1.5% (3)	4.9% (10)	204
Firefighter competency through demonstrated skills	96.6% (199)	1.5% (3)	1.9% (4)	206
Better understanding of fireground operations	96.1% (198)	1.0% (2)	2.9% (6)	206
Costs of training	31.7% (64)	42.1% (85)	26.7% (54)	202
Time commitment for training	23.5% (48)	63.7% (130)	12.7% (26)	204
Travel and budget constraints to the department	15.8% (32)	57.6% (117)	27.1% (55)	203
answered question				206
skipped question				0

**9. Are you aware of the Everyone Goes Home (EGH) program and the 16 Firefighter Life Safety Initiatives (FLSI)?**

		Response Percent	Response Count
Yes, our department is aware and supports EGH and the 16 FLSI		71.1%	145
Yes, our department is aware, but doesn't support EGH and the 16 FLSI		10.3%	21
No, our department isn't aware of EGH and the 16 FLSI		18.8%	38
answered question			204
skipped question			2

**Q6. Is there opposition in your department to obtaining Firefighter 1 certification? If so, what are some of the reasons for this opposition?**

1	I have members fail the class over minor mistakes on the practical exam	Dec 23, 2011 12:03 PM
2	We pay members to attend class, and we pay for the testing	Dec 18, 2011 6:19 PM
3	Certification should be part of the the training and attained on site at the completion of the class. If the instructors have done their job the students should have learned all the required competencies and proven them locally during class by demonstrating skills and successfully completing locally provided in class testing. Perhaps the instructors should be tested to confirm they have the knowledge to successfully teach the classes the Vo Tech provide. Please understand that I clearly support training and well trained firefighters we have to stop asking more of unpaid volunteers before we loose them all.	Dec 2, 2011 11:45 AM
4	not being able to pass the class or to old	Dec 1, 2011 10:18 AM
5	No real opposition but many firefighters feel certification is not that important and that once certified there is no annual refresher or re-certification requirement to maintain certification.	Nov 29, 2011 5:31 PM
6	Not applicable. All are trained	Nov 29, 2011 12:02 PM
7	I don't give that opportunity	Nov 29, 2011 11:50 AM
8	some feel it is only for full time departments, not paid on call members	Nov 28, 2011 7:52 PM
9	We are moving to cert 2 requirement in 2012	Nov 28, 2011 3:49 PM
10	Require FF I	Nov 28, 2011 3:20 PM
11	Fire Fighter I & II are requirements of employment but most all the existing fire fighters feel that is is not a problem and that everyone entering employment with our department should have the certifications.	Nov 28, 2011 3:06 PM
12	Required	Nov 28, 2011 3:06 PM